Economic Planning Initiative

EDUCATION
FACT SHEET

Boston Redevelopment Authority
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I. Sector Description and Definition

With 35 colleges and universities within City limits, and more than 30 others in the greater Boston area, higher education is the third largest of Boston's largest employment sectors, employing approximately 8% of Boston residents. The economic importance of this sector is increased by the presence of more than 135,000 students who live in Boston, who generate more than $700 million in demand for off-campus goods and services. Finally, university-based research attracts million of dollars each year in federal and private research and development funding.

II. Job Opportunities and $alaries

The sector provides a wide range of job opportunities and pay scales. Here's information on job and salaries in Boston.

Many universities rely on contract employees for their service and maintenance workers (such as food service, security, and cleaning workers.

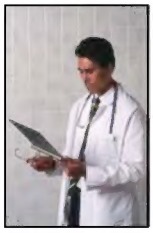
	# of employees	median hourly wage
Professional & Technical	24,720	21.15
Clerical & Administrative Support	8,100	12.46
Managerial & Administrative	5,320	26.86
Service Workers	3,080	12.02
Construction & Maintenance	1,170	14.97
Agricultural & Landscaping	130	14.32
Sales	60	15.15
	43.410	

Source: Massachusetts Division of Employment & Training (DET)

III. Major Employers

Employers in the education sector are among Boston's largest. They include not only universities but also university-affiliated hospitals:

1 – Massachusetts General Hospital
3 – Beth Israel Deaconess Hospital
4 – Brigham and Women's Hospital
5 – Boston University
6 – Children's Hospital
7 – New England Medical Center
9 – Boston Medical Center
13 – Northeastern University



IV. Related Industries & Sectors

Health/Medical. The largest employment sector in Boston, it is heavily dependent on the skilled workforce that is generated from area universities. Boston University, Harvard University (Cambridge) and Tufts University (Medford) all have their medical schools and teaching hospitals within the city. One of this sector's largest economic impacts comes from the federal R&D grants it attracts: more than $1.0 billion from the National Institutes of Health (NIH) in 2000, and another $52 million from other federal agencies in FY99.

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V. Massachusetts Health and Educational Facilities Authority (HEFA)

HEFA was created over thirty years ago to assist nonprofit institutions in the fields of heath, education, culture, and science to help improve the lives of people in the health and education professions and those who access their services. By providing low-cost loans, bond insurances and other financial services, HEFA helps nonprofit institutions achieve their goals of constructing new buildings, acquiring necessary equipment, saving on debt service, and reducing pressure on operating budgets.

HEFA is a self-supporting, independent public authority, and consists of nine board members appointed by the State Governor. HEFA generates funds by charging each individual institution a fee, which ranges depending upon each project. HEFA receives no public funds. In the past thirty years, HEFA has raised over $18 billion in capital for institutional projects ranging in cost from $20,000 to $300 million. For more information, go to www.mhefa.org.

VI. Education and Training Issues

Post-secondary Education More Important than Ever. The Massachusetts Board of Higher Education estimates that over 1.1 million new and replacement jobs will be created in the state by 2005. Of these, more than half will require the equivalent of one or more years of college. Two out of five jobs will require a bachelors degree or higher.

Students Wanted. Sobering news for our technology-driven economy: the number of students at New England colleges and universities pursuing degrees in the sciences and engineering decreased by 6% from 1994-1997. This reflects a similar national trend.

Graduate Degrees. The number of graduate and professional students in New England outpaces other regions, with a disproportionate 8% of the national total.

VII. Sector Trends and Issues

International Industry. Higher education (international enrollments) is now the fifth largest export industry in the U.S. Many Boston-area universities have high percentages of international students, led by Boston University. Until recently BU led the nation in the number of international students in U.S. universities. This past year, they have slipped into the 7th position, in large part because of increased competition from colleges and universities around the nation.

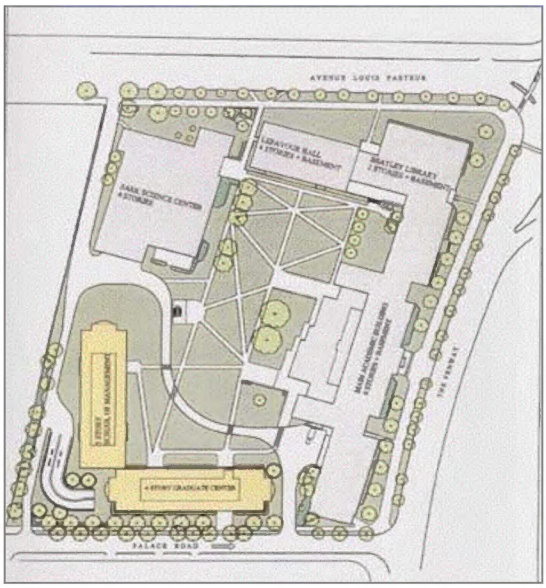
Post 9/11. Changes in federal immigration policy as a result of the September 11 terrorist attacks are expected to include stricter guidelines for issuing student visas for international students wishing to attend U.S. universities, as well as new requirements for reporting international student admissions and attendance. These, along with safety concerns by international students and their parents, may serve to decrease enrollments.

Student Housing. The large student population in Boston puts additional pressure on an already tight rental housing market, especially in neighborhoods adjacent to college campuses. While most local colleges provide on-campus-housing options for most or all of their freshman, other undergraduates compete for housing in the private rental market. Of the approximately sixty-two thousand full-time undergraduates enrolled in Boston's colleges, 43.9% live on campus. Both the difficulty of securing high-quality rental housing as well as safety concerns have led to an increased demand by undergraduates for additional on-campus housing options. Local elected officials and neighborhood groups have pressed universities to increase the supply of on-campus housing to students, thus freeing private-sector housing for Boston residents. Universities have responded, adding 10,511 dormitory beds in the city between 1990 and 2001.

Undergraduate Tuition Costs for 2002

Under $10,000	$10,000 - $15,000	$15,000 - $20,000	Over $20,000
Baptist Bible College East	Art Institute of Boston	Berklee College	Boston College
Boston Architectural Center	Bay State College	Boston Conservatory	Boston University
Bunker Hill Comm. College	Fisher College	Emmanuel College	Emerson College
Hellenic College	Franklin Institute of Tech.	Forsythe College	NE Conservatory of Music
Katherine Gibbs School	Laboure College	School of MFA	Northeastern University
Mass College of Art	Mass College of Pharmacy	Suffolk University	Simmons College
NE College of Finance	Wentworth Institute of Tech.	Wheelock College	
Roxbury Community College			
Saint John's Seminary			
UMass-Boston			

VIII. Institutional Master Plans (IMP)



Article 80 of the Zoning Code requires nonprofit institutions such as colleges and universities to file an IMP with the BRA as a means to assess the economic development role of institutions in their surrounding neighborhoods and to provide a vehicle for the public to review those plans. The IMP must be renewed every five years and updated whenever the institution moves forward with new development. IMPs are not required for state colleges and universities. All schools will eventually be required to file an IMP.

Existing Institutional Master Plans

Berklee College – Allston	Mass College of Pharmacy
Boston College	New England Medical Center
Boston University	Northeastern University
Boston University Medical Center	Simmons College
Emmanuel College	Suffolk University
Harvard – Allston	Wentworth Institute Technology

IX. In the Neighborhoods

Allston-Brighton. As home to Boston College, the Harvard Graduate School of Business, and close proximity to Boston University, Allston-Brighton is the neighborhood with the highest concentration of student residents. Harvard University recently acquired 240 acres of land in North Allston and is considering relocating one or more of its graduate schools, as well as several cultural institutions, to the site from their current Cambridge location.

Back Bay/Beacon Hill. More than a few academic institutions are found here: Suffolk University, Emerson College, Fisher College, Bay State College, New England University, and the Berklee School of Music. Boston University also holds considerable property in the Back Bay. The Beacon Hill neighborhood is home to several university-affiliated medical institutions, such as Massachusetts General Hospital and the Massachusetts Eye and Ear Infirmary.

Fenway/Kenmore. These neighborhoods have the highest concentration of academic institutions in Boston, including Boston University, Northeastern University, Simmons College, Wheelock College, Emmanuel College, Massachusetts College of Art, Wentworth Institute of Technology, the New England Conservatory of Music, and the School of the Museum of Fine Arts. The area also encompasses the Longworth Medical and Academic Area, which in addition to many of Boston's teaching hospitals includes schools such as the Massachusetts College of Pharmacy and Health Sciences and Harvard's Medical School and School of Public Health.

Roxbury. Home to Roxbury Community College. However, nearby institutions, especially larger ones such as Northeastern University and those of the Longwood Medical and Academic Area, have a significant impact on the neighborhoods, especially in terms of increasing demand for student housing and planned institutional expansion. The Roxbury Master Plan expects to include a request for closer collaboration and linkages between the Roxbury Neighborhood Council and abutting academic institutions as a neighborhood priority.

State Budget Update

The recently approved FY2002 state budget included a $25.5 million (-5.4%) reduction in state appropriations for the four University of Massachusetts campuses and a $338K (-2.5%) reduction for the Massachusetts College of Art. Community colleges fared slightly better. Bunker Hill Community College received a $260K (1.4%) increase while funding for Roxbury Community College increased by $63K (0.6%). Additional cuts are being proposed. State colleges and universities have responded by increasing student fees, offering incentives for faculty early retirements, and consolidating or cutting some academic programs.

According to the *Chronicle of Higher Education*, Massachusetts is one of only five states that reduced spending on higher education for FY02, and ranks **50th** nationally for state spending.

X. BRA Planning Initiatives

North Allston Neighborhood Strategic Plan. The purpose of the North Allston Neighborhood Strategic Plan is to provide the North Allston neighborhood with a guide for growth, development, and infrastructure improvement that is appropriate for the neighborhood. The plan will be developed in conjunction with the North Allston Community Planning Group, a working group that represents community members, property owners, businesses, institutions, and elected officials. Goody, Clancy & Associates has been selected to assist in the preparation of the Strategic Plan. The history of the Strategic Plan began in the spring of 1998, when the Boston Redevelopment Authority approved the Harvard University Allston Campus Institutional Master Plan.

Did You Know?

- Boston's colleges and universities graduate more students per capita than any other U.S. city (43 per 1,000 residents).
- Last year, *Boston Magazine* ranked three local colleges among the regions best places to work: Boston College, Boston University, and Northeastern University.

Fenway Neighborhood Planning and Rezoning. Phase II of this neighborhood rezoning effort follows the successful Phase I, and will cover the area of East Fenway that includes both Northeastern University and the Berkelee School of Music.

Midtown Cultural District. Adopted in 1989, this plan was instituted in part to address the concerns around the former "combat zone." Institutions within its boundaries include academic and administrative buildings of Emerson College, its Majestic Theatre, and several of Tufts University's medical school programs.

Longwood Medical Area Plan. Currently at the draft proposal stage within the BRA, this study would help guide future development in Boston's largest concentration of medical institutions. Educational institutions in the LMA include the Harvard Dental School, the Harvard School of Public Health, and the Massachusetts College of Pharmacy.

SCHOLARSHIPS

Residents of Boston have access to approximately 340 scholarships on an annual basis from twenty-eight (28) area institutes of higher learning. Community Sponsored Scholarships from a wide variety of sources provide up to 320 scholarships and grants in aid. There are also a few interest free loans available.

Detailed information is available in a booklet put out by the Mayor's Office or online at: *www.bostonyouthzone.com*.

These scholarships vary each year in both number of recipients and amount available based on the applicant pool and available funds.

XI. Citywide Initiatives

Leading the Way. Mayor Menino's strategic plan for creating new housing in Boston involves colleges and universities in several ways. The plan calls upon colleges and universities to increase their production of student housing. Institutions with significant land holdings will be encouraged to make land available for affordable housing. Finally, institutional technical expertise can help identify cost-saving financial tools and faculty research can develop new production techniques that will help lower housing costs.

XII. Tax Exempt Land in Boston

The university sector has approximately 791parcels of tax exempt land in Boston, which represents 855 acres, or 5.8%, of the taxable land in Boston. Most colleges and universities pay *PILOTs* to the city of Boston. *PILOTs* are payments that institutions voluntarily pay to the city of Boston in cash.

The following chart indicates the cash payments made to the city of Boston. There are a number of additional non-cash contributions made by educational institutions. Some examples include scholarships for neighborhood children, contributions and equipment to local schools, tickets for athletic and other events for neighborhood people and free classes for seniors.

PILOT Payments (Fiscal Year 2001)

Universities	Payments
Boston University	$ 5,254,061
Harvard University	1,430,746
Boston College	205,301
Berklee College of Music	151,938
Northeastern University	138,064
Suffolk University	102,089
Mass. College of Pharmacy	97,944
SHOWA	87,075
Emerson College	21,930
Tufts University	17,011
Simmons College	15,000
New England School of Law	13,125
Wentworth Institute	1,854
Total	**$ 7,546,156**

XIII. Boston Higher Education Partnership

The Boston Higher Education Partnership (BHEP) is a consortium of the Boston Public Schools and 27 public and independent colleges and universities in the greater Boston area. The Partnership's mission is to support collaborative activities that improve the quality of education for students in Boston Public Schools as well as enhance the research and teacher training activities in member institutions. The most notable result of the BHEP's work is the increase in scholarship money awarded to BPS graduates by local colleges and universities, approximately $22 million a year. Institutions provide other in-kind benefits to BPS, such as volunteers and tutors, professional development opportunities, and the use of campus facilities. BHEP members also help support the Higher Education Information Center, which provides college advising and financial aid counseling to Boston residents from their offices at the Boston Public Library's Copley branch, community-based offices, and their web site: www.heic.org.

PIPELINE PROJECTS

Project	SF	Cost
Approved		
BU – Armory/East Student Village (817 Beds)	360,000	70,000,000
Emerson College	185,000	60,000,000
Harvard All. Campus MP Amend. (113 PS)	44,000	15,000,000
MCP White Building Addition (270 Beds)	31,430	25,000,000
Under Construction		
Harvard Institute of Medicine	435,000	120,000,000
Harvard Graduate Student Housing (236 Apts.)	236,000	73,000,000
BC – Faculty/Admin Bldg. & Residence Hall	156,000	30,000,000
Suffolk U – Residence Hall (386 Beds)	148,000	40,000,000
Emmanuel College Plan – Merck Bldg.	145,000	120,000,000
NU – Behrakis Health Science Building	120,000	33,000,000
Emerson College Allen's Alley (Perf. & Prod.)	80,000	40,000,000
MATCH – School Foundation (20k Ed & 10k ofc.)	31,100	5,000,000
Under Review		
Bu – New Science Building	187,000	80,000,000
Harvard – Allston/Baker Library Expansion	104,000	54,000,000
Harvard – LMA Master Plan	87,500	41,000,000
Harvard Dental School	53,000	30,000,000
Permitting		
Emanuel IMP Amendment (121 Beds)	48,135	8,600,000

XIV. The Future of Distance Education

Although New England is best known for its traditional 4-year colleges and universities, distance learning is slowly gaining a foothold in the area. Most Boston area universities offer a limited selection of courses on-line and a few, such as the University of Massachusetts or Northeastern University, offer a growing range of on-line certificates, bachelors, and Masters degrees.

The success of the fully "on-line university" in the area, however, remains to be seen. Boston-based Harcourt Higher Education, the on-line education effort of the publishing house, closed its doors last year. However, the University of Phoenix, an accredited on-line degree granting institution with 116 campuses nationwide, opened a campus in Braintree and is now offering business, management, and technology courses. And in an unusual move into higher education, www.Kaplan.com, best known for its test preparation classes, purchased Hesser College in New Hampshire, and offers a fully accredited on-line law school, the Concord School of Law.

Few people believe that distance learning presents a serious challenge to the traditional college campus. Students often take on-line classes in addition to their campus-based courses. However, some educators believe that they provide an important professional development option for adult learners searching for a convenient way to upgrade their skills.

Where Are BPS Graduates Studying?

The top 10 enrolling colleges & universities for BPS Class of 2000 account for approximately 50% of all BPS graduates.

Rank	School
1	Bunker Hill Community College
2	Roxbury Community College
3	UMass-Boston
4	Northeastern University
5	Quincy Community College
6	UMass-Amherst
7	Boston University
8	Mass Bay Community College
9	Bay State Community College
10	Wentworth Institute

Boston Redevelopment Authority
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The Economic Planning Initiative's nine interdepartmental teams connect the BRA to industry leaders, issues, and the latest trends in the greater Boston area.

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Education Sector Team

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Nick Haney
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Aracelis Mercado*
Betty Southwick

** former members*

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Economic Sector Teams

Education
Financial Services, Insurance, Real Estate
Health & Medical
Hotels
Industrial
Professional Services
Retail
Technology
Culture, Sports & Recreation

XV. Bringing Research to Market

An important way that research institutions contribute to the economy is through ***technology transfer***. The term refers to the patenting and licensing of scientific research from university laboratories and their transfer to the commercial sector.

Federal legislation passed in 1980 made it easier for universities and businesses to retain the title to innovations that come from federally sponsored research programs. The result has been a dramatic increase in the number of new products, businesses, and jobs that come from academic research programs. Nationwide, in FY00 alone, more than 347 new products were brought on the market and 450 new companies were launched whose origins were in university research—resulting in over $40 billion in economic activity. Of those companies, it is estimated that 80% stay in the academic institution's home state.

Major research universities and hospitals in Boston, such as Boston University and Beth Israel-Deaconess all have technology transfer offices to help move their faculties' ideas and discoveries into the private sector. In FY99, Boston's research institutions reported executing more than 114 new licenses options to businesses and earning more than $9.7 million in licensing fees and royalties. The real technology transfer powerhouse of the region, however, is MIT, which alone reported executing 95 licenses and options to businesses, earning more than $18 million in fees.

Research

Mindpower in Massachusetts, www.mass.edu/ir/condition/mindpower.pdf.

Massachusetts Health & Educational Facilities Authority (HEFA), www.mhefa.org.

Demand Exceeds Supply of Dorm Beds in Boston, BRA Report #549, July 2001.

The Largest Private Employers in Boston, BRA Report #545, August 2001.

Boston Benefits as College Capital: A Decade of Enrollment in Boston's Colleges and Universities, BRA Report #540, September 2000.

Higher Education in Boston: Intellectual Capital as a Catalyst for Economic Growth, BRA Report#532, March 2000.

The Largest Employers in the City of Boston, BRA Report #509, September 1997.

How College Students Impact Boston's Economy and Neighborhoods, BRA INSIGHT 95-2, November 1995.

Dormitory Bed Increase Welcome in Boston's Hot Housing Market, BRA INSIGHT 00-02, January 2000.

BRA Research Reports are available free of charge on the BRA website: www.bostonredevelopmentauthority.org